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Harvard
Graphics

the

COMPLETE REFERENCE

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Harvard™ Graphics: The Complete Reference

Overview

An Introduction to Harvard Graphics
Harvard Graphics Features

This chapter provides an overview of Harvard Graphics, its origins, and its features. If you have little or no experience with Harvard Graphics, you will want to read this chapter to familiarize yourself with this software. If you are already an experienced Harvard Graphics user, you may want merely to scan this chapter before proceeding to the sections of this book that interest you most.

An Introduction to Harvard Graphics

Harvard Graphics is a high-end chart production application, marketed by Software Publishing Corporation. With Harvard Graphics you can create presentation-quality charts, and then print, plot, or produce slides of them. You can even combine your charts into a computerized slide show that can be displayed on your monitor, often called a desktop presentation.

Harvard Graphics is the most popular presentation graphics application for DOS-based personal computers ever sold. It is popular because it is an intelligent and easy-to-use application that is packed with features. The first time you use Harvard Graphics you will be able to produce quality charts with a minimum of effort. As you gain more experience with the program, you will want to use its wide variety of features to create custom tailored charts and images. These features include capabilities for adding drawings and annotations to charts, importing and exporting charts and data, building computerized presentations, and creating customized symbols such as a company logo to include in charts. An example of a chart created with Harvard Graphics is shown in Figure 1-1.

menus or forms. *Forms* are used to define chart characteristics, program parameters, and hardware settings. *Function keys* give you instant access to selected Harvard Graphics features. Menus, forms, and function keys are described in greater detail in the following sections.

Menus

Harvard Graphics is a *menu-driven* program. This means that you tell it what charting facilities and utilities you want to use by making selections from menus. In Harvard Graphics, a menu is a vertical list of choices. When you first start Harvard Graphics, you will see the menu shown in Figure 2-1. This is the Main Menu.

In most situations, when you make a selection from the Main Menu, Harvard Graphics will display another menu, which permits you to further define your request. For instance, if you choose the first selection on the Main Menu, < Create new chart >, Harvard Graphics displays the Create New Chart menu, which allows you to select the type of chart. Likewise, a selection from a second-level menu may in turn

Main Menu

Create new chart
Enter/Edit chart
Draw/Annotate
Get/Save/Remove
Import/Export
Produce output
Slide show menu
Chartbook menu
Setup
Exit

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F1-Help
F2-Draw chart   F4-Spell check   F8-Options   ◄┘ Continue
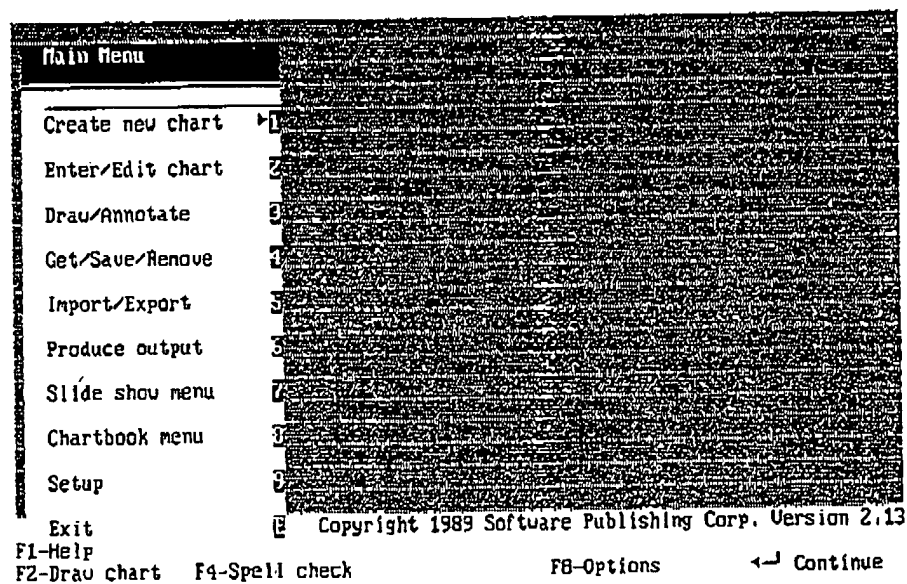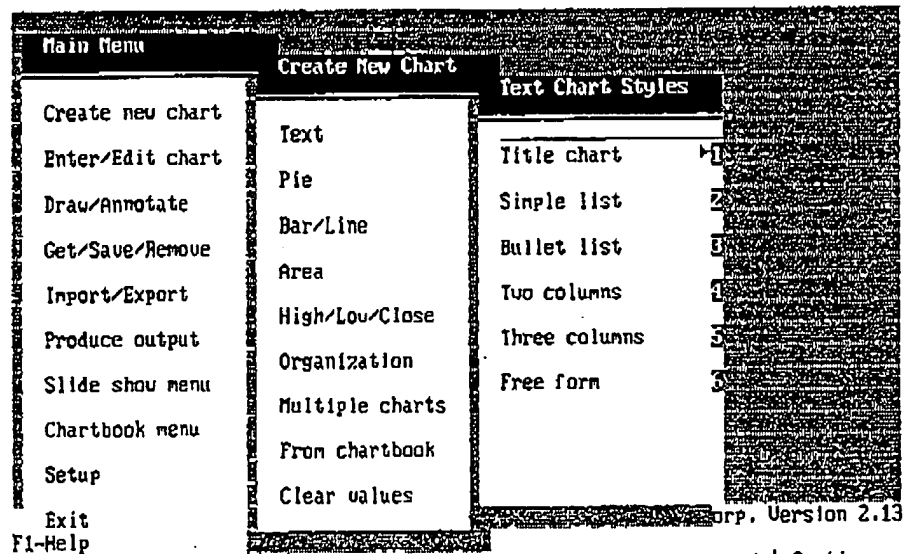
Figure 2-1.   The Main Menu

produce yet another menu. Figure 2-2 shows the Text Chart Styles menu, which is displayed when you select <Text> from the Create New Chart menu. If you keep making menu selections, Harvard Graphics will eventually display a form rather than another menu (forms are described shortly).

It is best to think of the organization of the menus in Harvard Graphics as a tree, with the Main Menu acting as the trunk, and the various submenus representing the branches of the tree. When you make a selection from the Main Menu, you go to one of the branches. In order to return to the trunk, press the ESC key. ESC returns you to the immediately preceding menu. If your cursor is on a menu that is two levels below the Main Menu, you will need to press ESC twice to return to the Main Menu. To move from one branch of the menu system to another, you must first return to the trunk, that is, the Main Menu.

There are two ways to select one of the menu items from a menu: typing and highlighting.

Main Menu	Create New Chart	Text Chart Styles	
Create new chart	Text	Title chart	1
Enter/Edit chart	Pie	Simple list	2
Draw/Annotate	Bar/Line	Bullet list	3
Get/Save/Remove	Area	Two columns	4
Import/Export	High/Low/Close	Three columns	5
Produce output	Organization	Free form	6
Slide show menu	Multiple charts		
Chartbook menu	From chartbook		
Setup	Clear values		
Exit			
F1-Help		orp. Version 2.13	

↵ Continue

Creating XY Charts

An XY chart is any chart where data are represented as symbols, and these symbols are displayed with respect to a horizontal and a vertical axis, labeled X and Y, respectively. Hence the name XY charts. The axes are somewhat like rulers. That is, you use them to determine the values represented by each of the symbols plotted on the chart. In bar charts, for example, you determine the value a bar represents by comparing the height of the bar to the value labels displayed on the Y axis.

To create an XY chart, follow these steps:

1. At the Main Menu, select < Create new chart >.

2. At the Create New Chart menu, select < Bar/Line >, < Area >, or < High/Low/Close >, depending on your needs.

3. Specify the X data type on the X Data Type Menu overlay (as described in "Specifying the X Data Type").

4. Enter your data on the Chart Data form specific to your chart style (as described in "Entering XY Chart Data").

5. Optionally, define any calculations or formulas that should be applied to your data to create additional series on the Calculate overlay (as described in "Using Calculations").

6. Press F8-Options to display the Titles & Options form for your particular XY chart (as described in "Specifying XY Chart Text"). Although this step is also optional, you will want to at least define axis labels. The Titles & Options form also lets you set the attributes of your text, customize its size and placement, specify the symbol type for your chart, define the colors for chart elements, and customize the legend, to name just a few alternatives.

At this point your XY chart is complete. If you want to save your chart without any additional modifications, skip to step 11. You may, however, want to consider some of the following optional steps to improve or enhance your chart:

7. To check the spelling of text in your chart, return to the Main Menu and press F4-Spell check. Additional information about spell checking your charts is provided in Chapter 2, "Harvard Graphics Basics."

8. To change the font used for text on your chart or to select a different chart border or orientation, return to the Main Menu and press F8-Options. Set the "Orientation," "Border," and "Font" options on the displayed Current Chart Options overlay. See Chapter 3, "Setup and Default Settings," for additional detail.

9. You may also want to embellish your XY chart by using Harvard Graphics' drawing and annotating features to add text or drawings, or incorporate any Harvard Graphics symbols in your chart. You can also reduce the overall size of your chart. See Chapter 9, "Drawing and Annotating," for more information.

10. If you want to print, plot, or record your chart on film, return to the Main Menu and select <Produce output>. See Chapter 8, "Producing Output," for more information.

11. Save your chart to disk if you want to use it at a later time. See Chapter 2, "Harvard Graphics Basics," for information on saving charts.

XY Chart Styles Overview

Each of the XY chart types permits you to create a wide variety of different chart styles. The following sections briefly describe the charts you can create with XY chart selections. If you would like more information about the uses of these various chart styles, see Chapter 17, "Effective Data Charts."
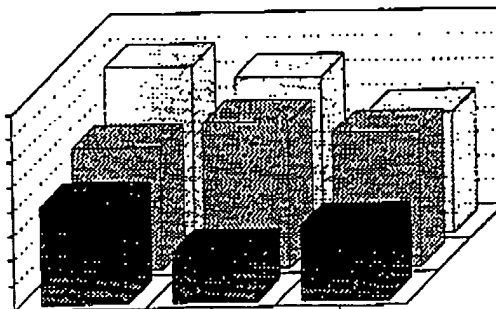
Bar/Line Chart

The <Bar/Line> selection from the Create New Chart menu allows you to create a variety of bar charts. Figure 6-1 shows a selection of the bar styles you can create. <Bar/Line> also allows you to create several types of line charts and point charts (also called scatterplots, crossplots, or scattergraphs). Examples of line and point charts created with Bar/Line are shown in Figure 6-2. On all of these charts, the height of the bars, lines, or points represents the value of your data.
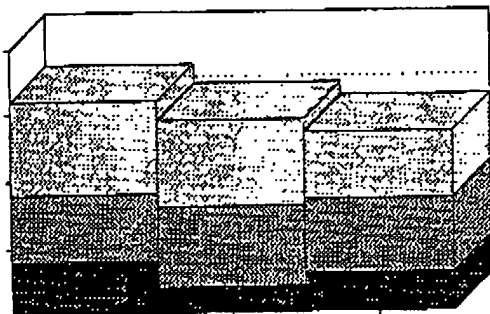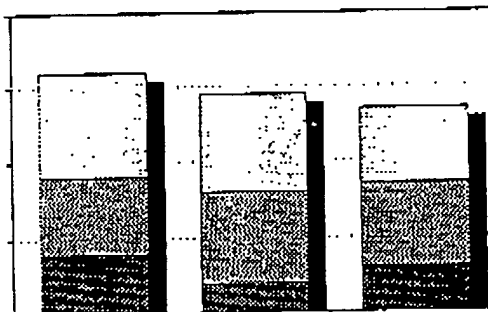
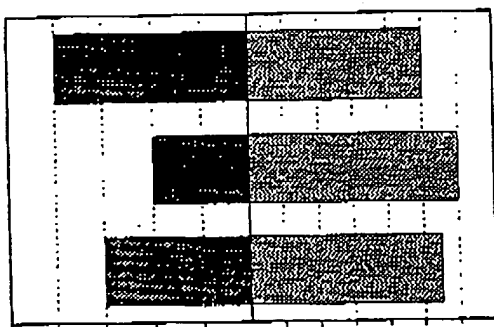## Horizontal 3D Clustered Bar
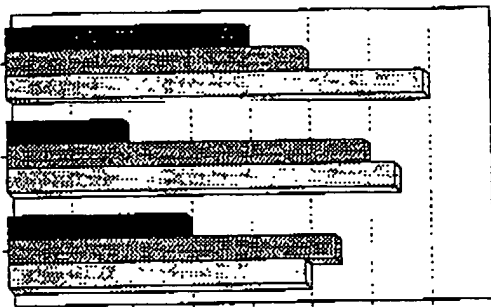
3D Overlap Bar

3D Stepped Bar
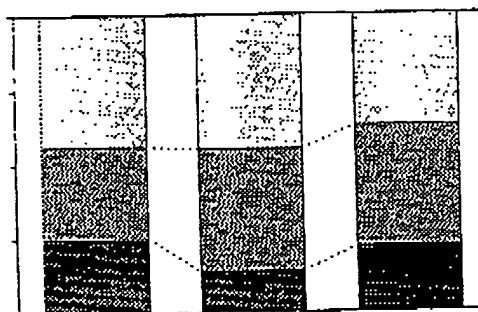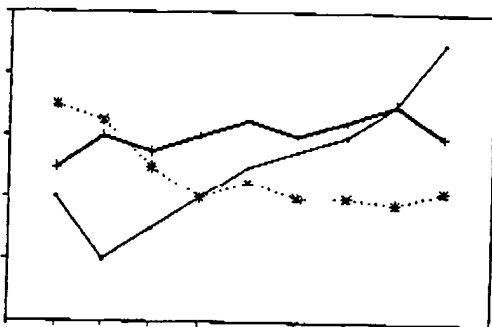
Stacked Bar with Shadow
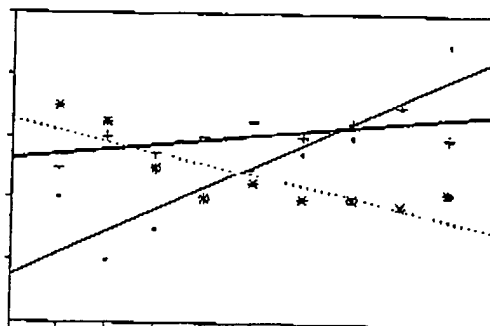
Paired Bar

Linked 100% Bar
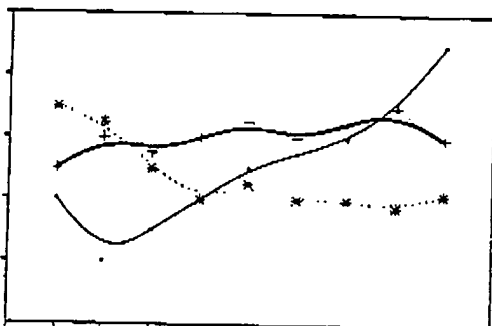
Figure 6-1.   Examples of bar chart styles

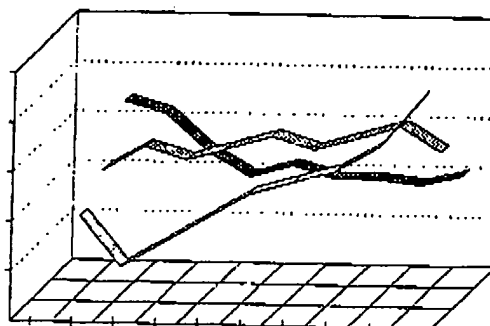## Line Chart

Trend Chart

Curve Chart

3D Line

Point Chart

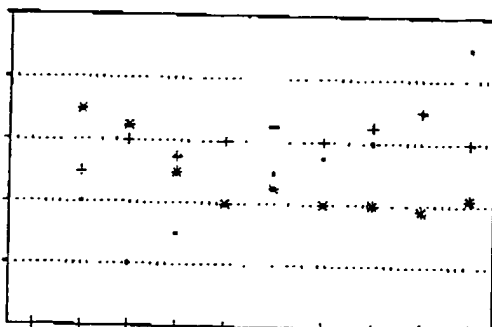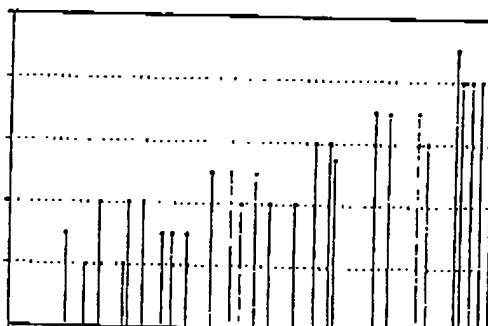## Needle Chart

Figure 6-2.   Examples of line and point chart styles